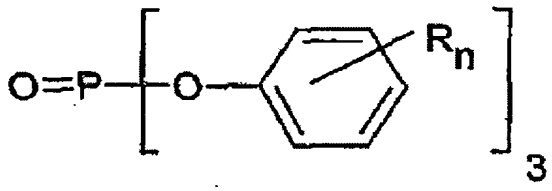
CLAIMS

1. Operating agent composition comprising
(A) carbon dioxide as refrigerant,
(B) polyalkylene glycols and/or neopentyl polyol esters as lubricant and
(C) a phosphate ester with the following structure:



wherein
R optionally, identically or differently for each of the three phenyl moieties and optionally, identically or differently for each n,
represents H or one or more C1 to C6 hydrocarbon moieties and
n optionally identically or differently for each of the three phenyl moieties represents an integer of 1 to 5,
with the proviso that for at least one of the three phenyl moieties
R is a C2 to C6 hydrocarbon preferably t-butyl and/or isopropyl.

2. Operating agent composition according to claim 1 comprising the phosphate ester in a quantity of 0.1 to 3 % by weight, based on the lubricant.

3. Operating agent composition according to one of the preceding claims characterised in that the polyalkylene glycols comprise no free hydroxy groups.

4. Operating agent composition according to one of the preceding claims characterised in that the operating agent composition comprises polyalkylene glycols

which, based on the polymer chain and the alkylene oxide monomer units used, consists of

- essentially exclusively monomer units of the type $-(-CH(CH_3)-CH_2-O-)-$ or $-(-CH_2-CH(CH_3)-O-)-$,
- 20 to 80% monomer units of the type $-(-CH(CH_3)-CH_2-O-)-$ or $-(-CH_2-CH(CH_3)-O-)-$and for the remaining residue of monomer units of type $-(-CH_2-CH_2-O-)-$ or
- 20 to 80% monomer units of the type $-(-CH(CH_2CH_3)-CH_2-O-)-$ or $-(-CH_2-CH(CH_2CH_3)-O-)-$ and for the remaining residue of monomer units of type $-(-CH_2-CH_2)-O-)-$.

5. Operating agent composition according to one of the preceding claims characterised in that the operating agent composition comprises polyalkylene glycols and/or their mixtures which have an average molecular weight (number average) of 200 to 3000 g/mole, particularly preferably of 400 to 2000 g/mole.

6. Operating agent composition according to one of the preceding claims characterised in that the polyalkylene glycols comprise aryl groups or heteroaromatic groups which may optionally be substituted with linear or branched alkyl groups or alkylene groups, wherein the alkyl groups or alkylene groups have a total of preferably 1 to 24 carbon atoms.

7. Operating agent composition according to one of the preceding claims characterised in that the polyalkylene glycols have the following end groups

- alkyl, aryl, alkylaryl, aryloxy, alkoxy, and/or alkylaryloxy end groups with 1 to 24 carbon atoms.

8. Operating agent composition according to one of the preceding claims characterised in that the operating agent composition comprises esters or an ester

mixture, wherein the esters are obtainable by reacting neopentyl polyols, particularly preferably pentaerythritol, dipentaerythritol and/or tripentaerythritol, with linear and/or branched C4 to C12 carboxylic acids, optionally with an addition of C4 to C12 dicarboxylic acids.

9. Operating agent composition according to one of the preceding claims characterised in that the operating agent comprises neopentyl polyol esters and polyalkylene glycols.

10. Operating agent composition according to one of the preceding claims characterised in that the operating agent composition comprises at least 10% by weight of polyalkylene glycols and neopentyl polyesters according to one of the preceding claims, based on all the constituents of the operating agent.

11. Operating agent composition according to one of the preceding claims characterised in that the operating agent consists predominantly, apart from the phosphate esters and the refrigerant, preferably exclusively, of polyalkylene glycols and neopentyl polyesters according to one of the preceding claims, based on the proportion by weight.

12. Operating agent composition according to one of the preceding claims characterised in that the operating agent additionally comprises a diphenyl amine, a di(C1 to C16 alkyl)phenyl amine as antioxidant and/or those compounds in which one or two phenyl groups have been exchanged for naphtyl groups.

13. Operating agent composition according to one of the preceding claims characterised in that the phosphate

ester have, at least for one the phenyl moietys, an R which is tert-butyl and/or isopropyl.

14. Use of the operating agent composition according to one of the preceding claims in refrigerating machines, preferably in motor vehicles.

15. Use of the operating agent composition according to one of claims 1 to 13 in freezing equipment (evaporation temperatures of less than -30°C), wherein lubricants are used which comprise more than 90% by weight of neopentyl polyol esters.

16. Use of the operating agent composition according to one of claims 1 to 13 in air conditioning equipment of cars, wherein lubricants are used which comprise more than 90% of polyalkylene glycols.

SK